

Amendments to the Claims:

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) A method for ~~regulating estrogen levels~~ assaying the number of glutamine repeats in the huntingtin protein of [in] an individual who carries the Huntington's disease gene, comprising the steps of:

providing aliquots of at least two recombinant huntingtin proteins having different known numbers of glutamine repeats;

providing an aliquot of huntingtin protein obtained from the individual having a number of glutamine repeats to be determined;

contacting the aliquots of the recombinant huntingtin proteins and the aliquot of huntingtin protein obtained from the individual with a steroid hormone having a detectable label;

detecting the amount of binding of the steroid hormone to the recombinant huntingtin proteins having different known numbers of glutamine repeats;

detecting the amount of binding of the steroid hormone to the huntingtin protein obtained from the individual having a number of glutamine repeats to be determined; and

determining the a number of glutamine repeats as indicated by the amount of binding of the steroid hormone to the huntingtin protein obtained from the individual by comparison to the amount of binding of the steroid hormone to the recombinant huntingtin proteins having different known numbers of glutamine repeats, thereby assaying the number of glutamine repeats in the huntingtin protein of an individual.

~~determining that the individual exhibits a trinucleotide repeat pattern, consisting of cytosine, adenine, and guanine (CAG), that comprises at least 38 CAG repeats;~~

~~determining the affinity of estradiol to bind to a polyglutamine located at an end of a huntingtin polyglutamine protein to determine an optimum time to begin regulating estrogen levels of said individual;~~

~~establishing that a serum level of estrogen in said individual is below normal for that individual;~~

~~administering one or more estrogen compounds, selected from a group consisting of estrogen, estrogen's respective precursors, and esters of estrogen, in amounts sufficient to maintain estrogen at a level normal for that individual.~~

2-6. (Canceled)

7. (Currently amended) The method of claim 1, wherein the steroid hormone is selected from the group consisting of estrogen, estrogen precursors, estrogen esters, and esters of estrogen precursors. ~~said predetermining step comprises the steps of,~~

~~obtaining one or more samples of a huntingtin polyglutamine protein with known numbers of glutamines;~~

~~mixing said sample with a labeled estradiol source and a buffering solution;~~

~~measuring the binding affinity of the labeled estradiol source to the huntingtin polyglutamine protein.~~

8. (Currently amended) The method of claim 1, wherein the detectable label is a radioactive label. ~~said affinity is measured with a gamma counter and is equal to or less than about 50,000 counts per minute.~~

9-12. (Canceled)

13. (Currently amended) The method of claim 1, wherein the recombinant huntingtin proteins have about 23 to about 63 glutamine repeats.

~~A method of regulating certain hormone levels in an individual who carries the Huntington's disease gene, comprising the steps of:~~

~~determining that the individual exhibits a trinucleotide repeat pattern, consisting of cytosine, adenine, and guanine (CAG), that comprises at least 38 CAG;~~

~~determining the affinity of estradiol to bind to a polyglutamine located at an end of a huntingtin polyglutamine protein to determine an optimum time to begin regulating estrogen levels of said individual;~~

~~establishing that a serum level of one or more hormone compounds, selected from a group consisting of estrogen, testosterone, progesterone, and their respective precursors, in said individual is below normal for that individual; and~~

~~administering one or more of said hormone compounds or an ester of said one or more of~~
~~said hormone compounds to maintain said hormone compounds at a level normal for that~~
~~individual.~~